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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/730,849	12/07/2000	Takuo Funaya	Q62153	9306

7590

12/10/2001

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EXAMINER

NHU, DAVID

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 12/10/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/70849

Applicant(s)

Funaya et al
SCHAEFER, MARKUS

Examiner

David Nhu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1--11 is/are pending in the application.
- 4a) Of the above claim(s) 9-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTIONS

Election/Restrictions

Applicant's election of Group I (Claims 1-8) in page No.6 is acknowledge.

Claims 1-8 are remained for examination. Accordingly, claims 9-11 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Specifications

Content of Specification

1. The disclosure is objected to because of the following informalities: Field of the Invention and Description of the Related Art are missing. Appropriate correction is required.

Background of the Invention: The specification should set forth the Background of the Invention in two parts:

- (a) **Field of the Invention:** A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
- (b) **Description of the Related Art:** A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3, 5, 7, 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3, 5, 7, 8 are not clear as said resin layer **would** effect a device characteristic.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Kondo et al (5,283,468).

Regarding claim 1, see Kondo, figures 1-45, and related text on col. 1-42, which disclose an assembly in which a plurality of electronic devices 101, 104 of different kinds are connected to a single electronic device, said electronic devices are connected to each other by conductive portions 107, 108, 109, 121, 150 implemented by metal, but insulated from each other by insulating portions 111 implemented by an adhesive, sealable patterned resin layer 123.

See Kondo, figures 5a-5b, 6a-6c, 18a-18b, 19a-19b, 20a-20b, col. 16, lines 30-67, col. 17, lines 1-67, col. 18, lines 1-25, col. 21, lines 30-67, col. 22, lines 1-10, col. 6, lines 5-67, col. 11-12, lines 1-67, col. 13, lines 11-60.

Regarding claim 2, an assembly as claimed in claim 1, wherein said resin layer is thermosetting and photoconductive. See Kondo, col. 7, lines 50-67, col. 8, lines 1-30, col. 10, lines 21-46, col. 13, lines 11-45.

Regarding claim 3, an assembly as claimed in claim 2, wherein said resin layer 123 is so patterned as to be absent around wiring portions 121 protruding from said electronic devices 101, around portions of circuit surface 104 of said electronic devices where resin forming said resin layer is effect a device characteristic, around electrode pads 102, 105, and around bumps 107, 108, 109 formed on said electrode pads. See figures 5a-5b, 6a-6c, 19a-19b, 20a-20b, col. 16, lines 30-67, col. 17, lines 1-67, col. 18, lines 1-25, col. 21, lines 30-67, col. 22, lines 1-10, col. 6, lines 5-67.

Regarding claim 4, an assembly as claimed in claim 2, wherein said resin layer has a function for flip chip bonding and a function for passivation. See col. 12, lines 47-67, col. 13, lines 1-45.

Regarding claim 5, an assembly as claimed in claim 4, wherein said resin layer 123 is so patterned as to be absent around wiring portions 121 protruding from said electronic devices 101, around portions of circuit surface 104 of said electronic devices where resin forming said resin layer is effect a device characteristic, around electrode pads 102, 105, and around bumps 107, 108, 109 formed on said electrode pads. See figures 5a-5b, 6a-6c, 19a-19b, 20a-20b, col. 16, lines 30-67, col. 17, lines 1-67, col. 18, lines 1-25, col. 21, lines 30-67, col. 22, lines 1-10, col. 6, lines 5-67.

Regarding claim 6, an assembly as claimed in claim 1, wherein said resin layer has a function for flip chip bonding and a function for passivation. See col. 12, lines 47-67, col. 13, lines 1-45.

Regarding claim 7, an assembly as claimed in claim 6, wherein said resin layer 123 is so patterned as to be absent around wiring portions 121 protruding from said electronic devices 101, around portions of circuit surface 104 of said electronic devices where resin forming said resin layer is effect a device characteristic, around electrode pads 102, 105, and around

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bumps 107, 108, 109 formed on said electrode pads. See figures 5a-5b, 6a-6c, 19a-19b, 20a-20b, col. 16, lines 30-67, col. 17, lines 1-67, col. 18, lines 1-25, col. 21, lines 30-67, col. 22, lines 1-10, col. 6, lines 5-67.

Regarding claim 8, an assembly as claimed in claim 1, wherein said resin layer 123 is so patterned as to be absent around wiring portions 121 protruding from said electronic devices 101, around portions of circuit surface 104 of said electronic devices where resin forming said resin layer is effect a device characteristic, around electrode pads 102, 105, and around bumps 107, 108, 109 formed on said electrode pads. See figures 5a-5b, 6a-6c, 19a-19b, 20a-20b, col. 16, lines 30-67, col. 17, lines 1-67, col. 18, lines 1-25, col. 21, lines 30-67, col. 22, lines 1-10, col. 6, lines 5-67.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Pasch'624, Black'008 are cited as of interest.
7. A shortened statutory period for response to this action is set to expired 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see 710.02 (b)).
8. Any inquiry concerning this communication on earlier communications from the examiner should be directed to David Nhu, (703) 306- 5796. The examiner can normally be reached on Monday-Friday from 7:30 AM to 5:00 PM. The examiner's supervisor, David Nelms can be reached on (703) 308-4910.

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The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956

David Nhu



November 28, 2001



David Nelms
Supervisory Patent Examiner
Technology Center 2800